## Abstract of the Disclosure

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A span between an optical transmitting end station and an optical repeater node, a span between optical repeater nodes, a span between an optical repeater node and a receiving end station, and a span between an optical repeater node and a CN/OADM/HUB node are set as first dispersion compensation sections. Additionally, a span between the optical transmitting end station and a CN/OADM/HUB node, a span between CN/OADM/HUB nodes, and a span between a CN/OADM/HUB node and the receiving end station are set as second dispersion compensation sections. In the first dispersion compensation sections, dispersion compensation is made so that residual dispersion becomes a predetermined negative value. In the second dispersion compensation sections, dispersion compensation is made so that residual dispersion becomes a positive value.